

Amendment
Serial No. 10/619,995

IN THE CLAIMS

Please amend the claim as follows:

1. (Currently Amended) An apparatus for drawing an optical fiber comprising:
 - a melting furnace configured to melt an optical fiber preform;
 - a preform feeder configured to feed the preform to the melting furnace;
 - a capstan configured to draw the optical fiber by pulling the preform from the melting furnace;
 - an outer diameter measurement unit for measuring an outer diameter of the drawn optical fiber; and
 - a control unit that includes a calculation unit, the calculation unit being configured to receive a drawing speed signal output from the capstan; ~~configured to calculate a first feed speed of the preform using the drawing speed signal;~~ configured to calculate a slope of the drawing speed during a previously arbitrary time period of time using the drawing speed signal; configured to obtain an expected drawing speed of a future ~~arbitrary time period by~~ using the calculated slope; configured to estimate a first compensation value according to a difference between the a present drawing speed and a target drawing speed; configured to estimate a second compensation value according to a difference between the present drawing speed and the expected drawing speed of the future arbitrary time later; and configured to calculate a second preform feed speed based on the estimated compensation values,
- wherein the control unit is configured to control the outer diameter of the optical fiber using the calculated ~~second~~ preform feed speed.

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2. (Previously Presented) The apparatus as set forth in claim 1, wherein the control unit is configured to regulate the outer diameter of the optical fiber by regulating the speed of the capstan according to a signal received from the outer diameter measurement unit indicating a change in the outer diameter of the optical fiber.

3. (Canceled)

4. (Currently Amended) The apparatus as set forth in claim 3, wherein the previously arbitrary time period includes a period prior to an automatic feed by the preform feeder.

5-12. (Canceled)